



Wisconsin Retirement System

**21st Annual Actuarial Valuations
December 31, 2001**

Gabriel, Roeder, Smith & Company

June 2002

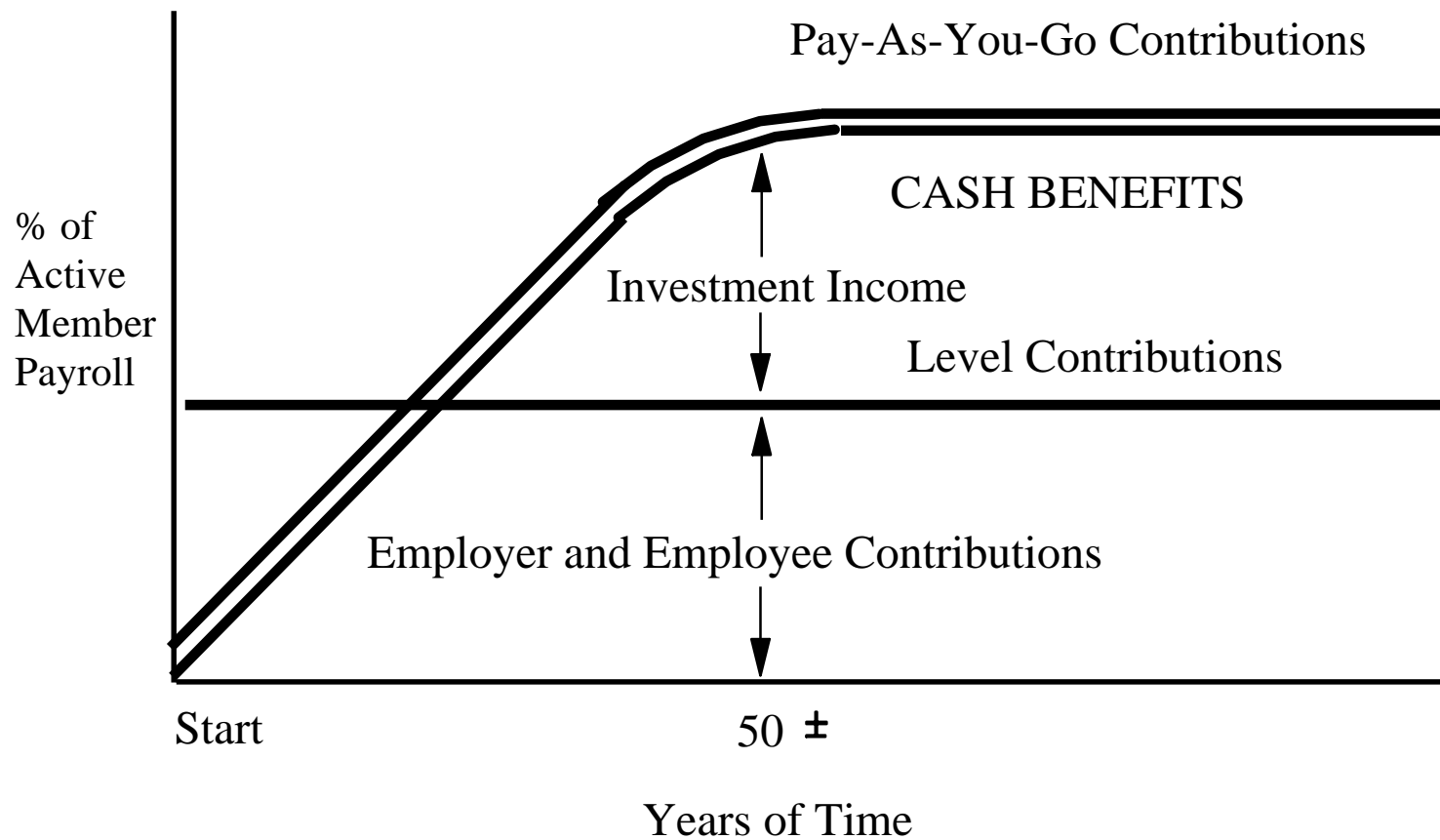
Funding Objectives

- Intergenerational equity with respect to plan costs
- Stable or increasing ratio of Assets to Liabilities
- Stable pattern of contribution rates

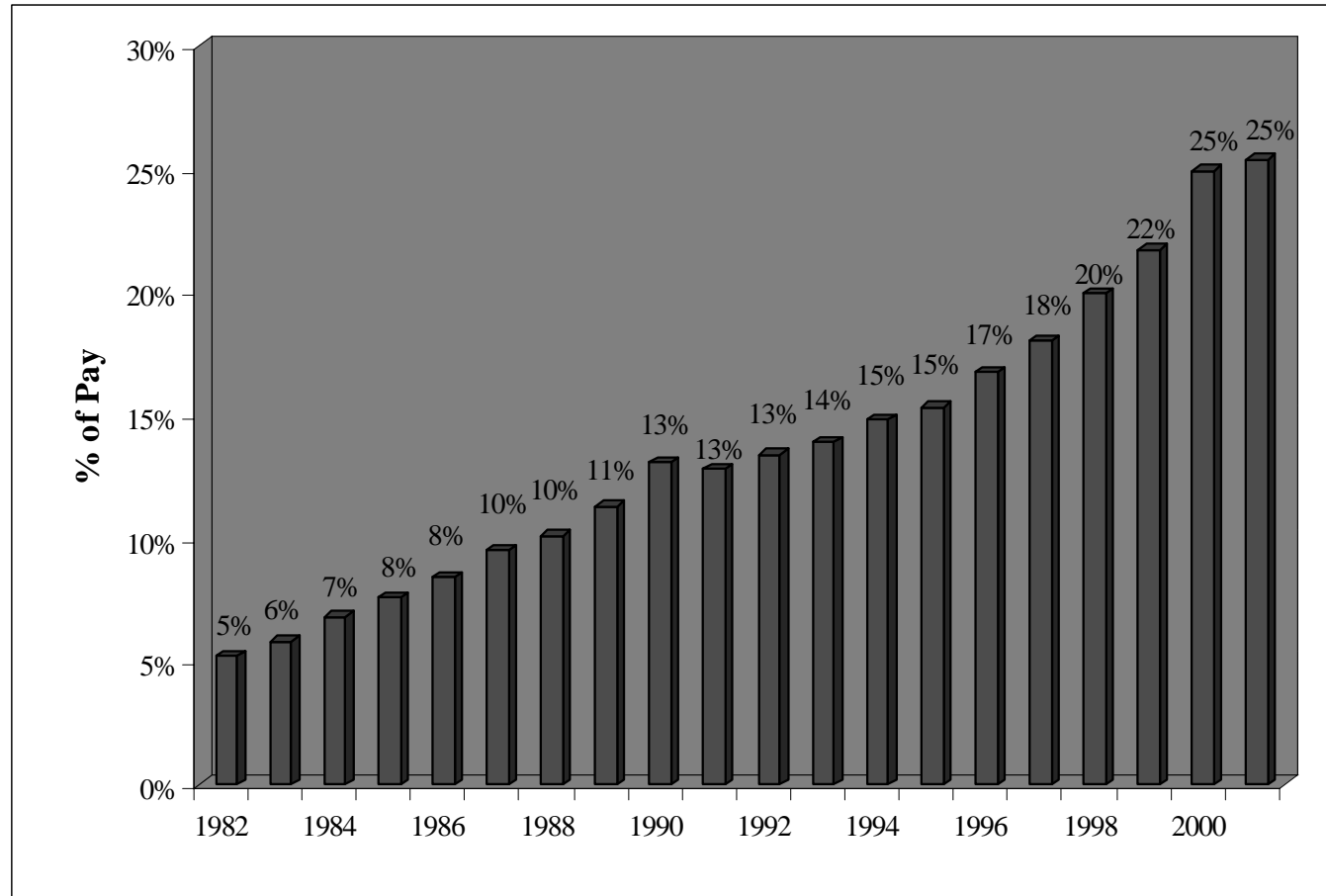
What's Needed to Meet Objectives?

- Reasonable forecasts of resources and obligations (i.e., good assumptions)
- Level % of payroll funding method
- Funding discipline
- Sound investment program

Financing Diagram

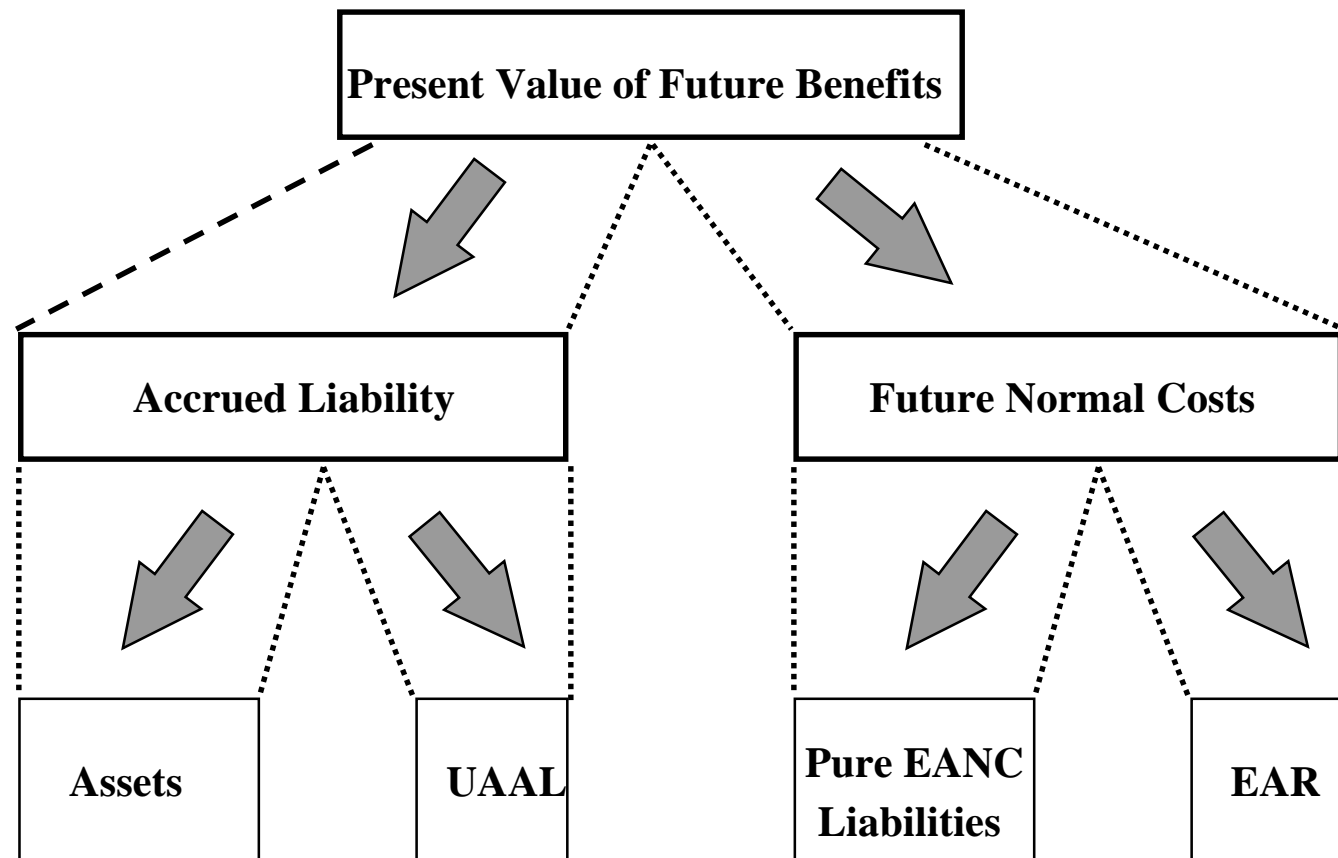


Annuities as a % of Payroll



Annuities will increase as a % of payroll for several more decades. Increases will be paid from income from retirement system assets.

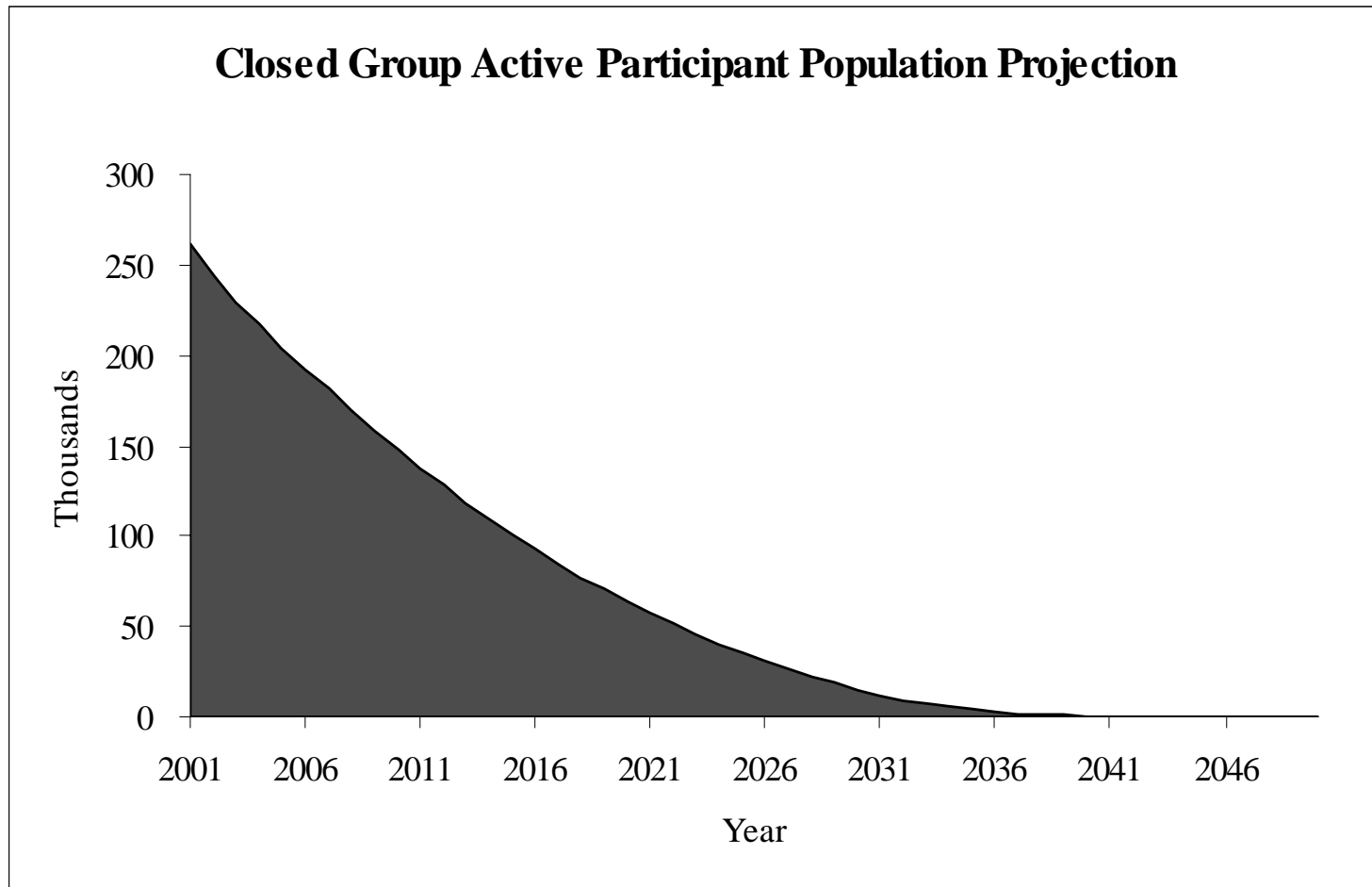
The Actuarial Valuation Process



Active Participants

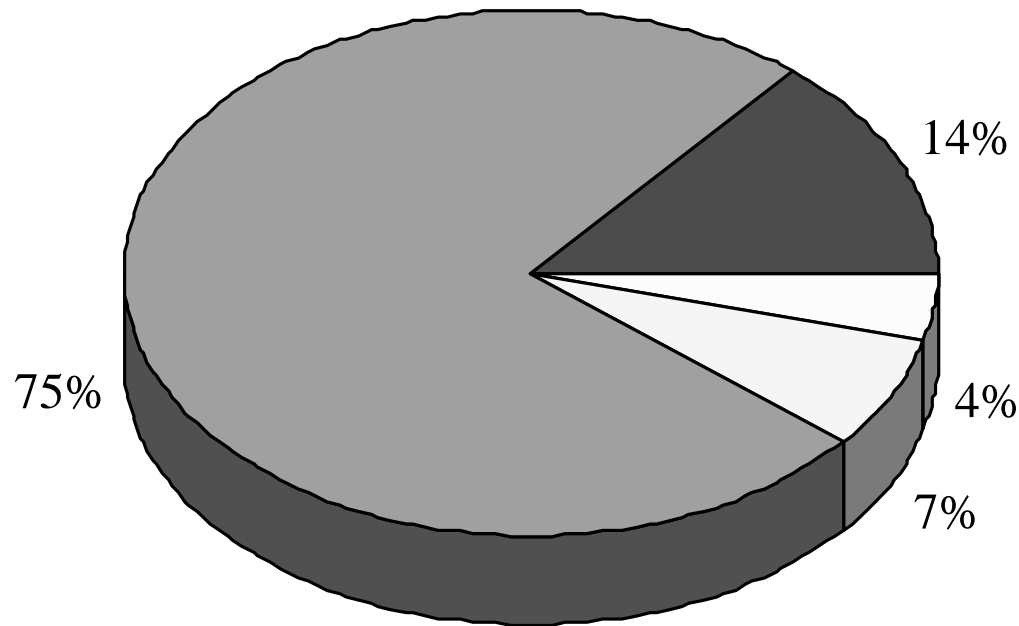
Valuation Group	Number	Annual Earnings (\$Millions)	Group Averages		
			Earnings	Age	Years of Service
General	238,944	\$8,746.5	\$36,605	44.6	11.1
Executive & Elected	1,486	84.8	57,060	53.2	12.2
Protective with Soc. Sec.	17,981	771.6	42,914	38.2	10.7
Protective without Soc. Sec.	2,715	142.1	52,339	39.6	12.9
Total Active Participants	261,126	\$9,745.0	\$37,319	44.1	11.1
Prior Year	255,217	\$9,270.6	\$36,324	44.0	11.2

Closed Group Active Participant Population Projection



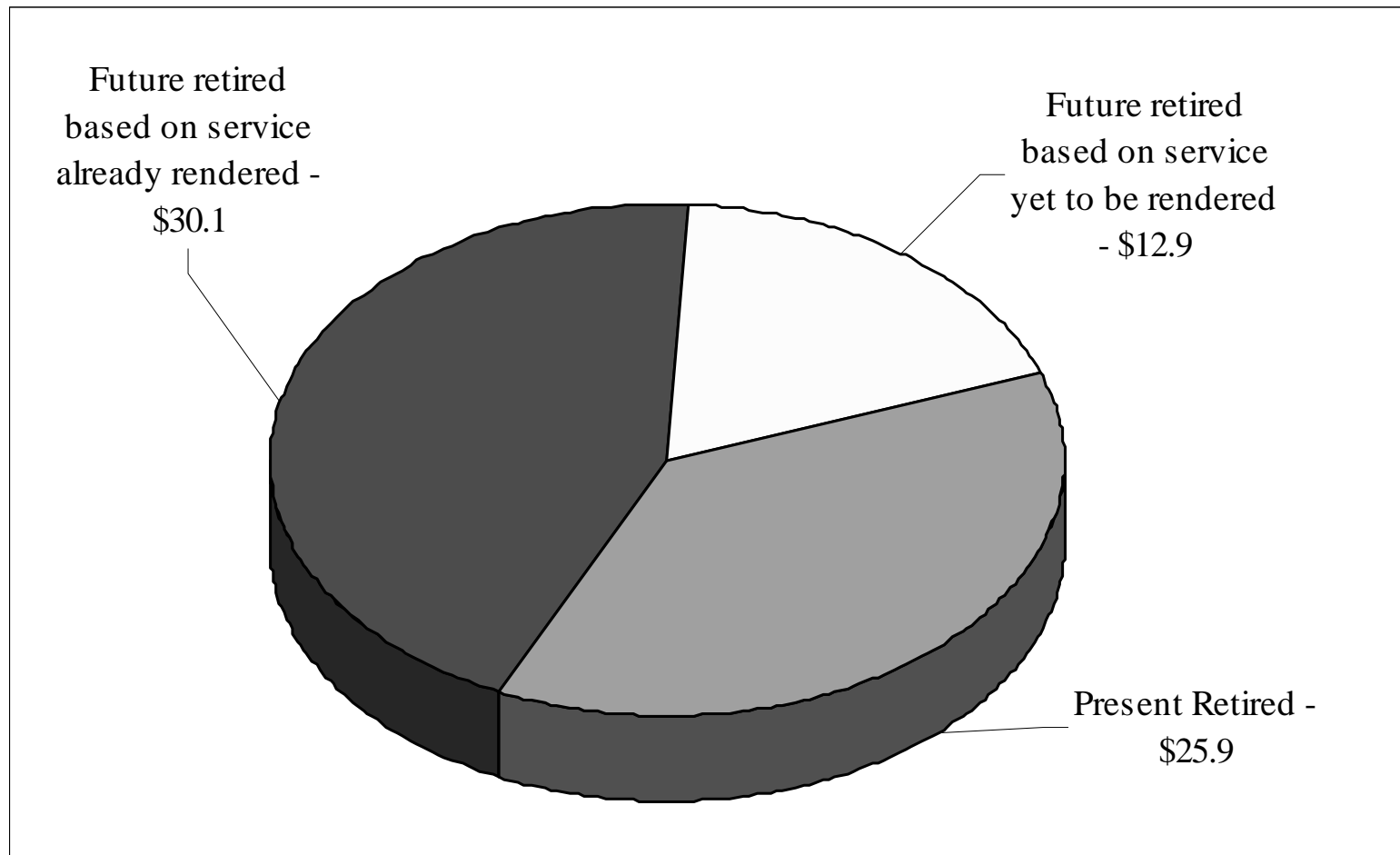
Expected Terminations from Active Employment for Current Active Participants

Closed Group Active Participant Population Projection



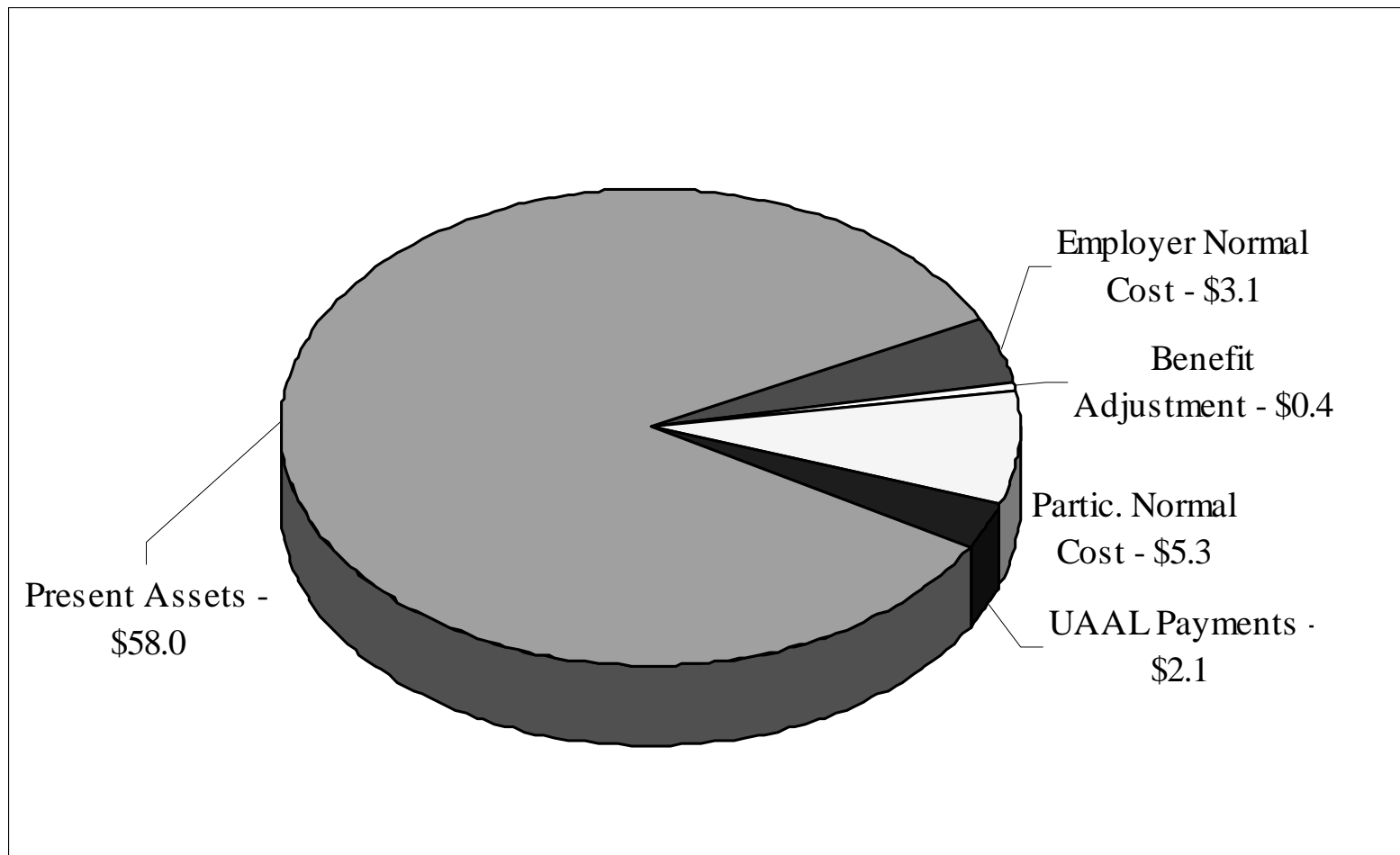
■ Retirements ■ Separations □ Death and Disabilities □ Deferred Retirements

\$62.0 Billion* of Benefit Promises to Present Active and Retired Members



* *Present value of future benefits; all divisions combined*

Sources of Funds for Financing \$62.0 Billion* of Benefit Promises



* *Present value of future benefits; all divisions combined*

Summary of December 31, 2000 Valuation Results

	Protective Occupation			
	With Soc. Sec.		Without Soc. Sec.	
	2003	2002	2003	2002
Employer Normal Cost	7.1%	7.1%	9.8%	10.4%
Benefit Adjustment Contribution	0.0%	0.0%	0.0%	0.0%
Participant Normal Cost	4.0%	4.0%	2.4%	3.0%
Total Normal Cost	11.1%	11.1%	12.2%	13.4%
Unfunded Actuarial Accrued Liability (UAAL)	0.6%	0.7%	1.5%	1.5%
WRS Average Total	11.7%	11.8%	13.7%	14.9%

Summary of December 31, 2001 Valuation Results

	General Participants		Executives & Elected Officials	
	2003	2002	2003	2002
Employer Normal Cost	4.0%	3.8%	8.1%	8.6%
Benefit Adjustment Contribution	0.4%	0.2%	0.0%	0.0%
Participant Normal Cost	5.0%	5.0%	2.6%	3.1%
Total Normal Cost	9.4%	9.0%	10.7%	11.7%
Unfunded Actuarial Accrued Liability (UAAL)	1.2%	1.3%	1.0%	1.0%
WRS Average Total	10.6%	10.3%	11.7%	12.7%

Comparative Statement of Contribution Rates

Valuation 12/31	General	Exec. & Elected	Protective with Soc. Sec.	Protective without Soc. Sec.
1982	11.5 %	17.4 %	18.1 %	27.8 %
1987	12.0 %	17.4 %	18.3 %	24.9 %
1992	12.3 %	17.6 %	17.3 %	23.8 %
1997	11.6 %	15.1 %	13.8 %	19.7 %
1998	11.0 %	14.7 %	12.1 %	17.7 %
1999	10.3 %	14.3 %	11.4 %	15.5 %
2000	10.3 %	12.7 %	11.8 %	14.9 %
2001	10.6 %	11.7 %	11.7 %	13.7 %

Changes in Average Total Rates

<u>Rates for</u>	<u>General</u>	<u>Executive & Elected</u>	<u>Protective Occupations With S.S.</u>	<u>Without S.S.</u>
2002	10.3%	12.7%	11.8%	14.9%
Act 11	0.4	0.1	(0.4)	(0.7)
Other	<u>(0.1)</u>	<u>(1.1)</u>	<u>0.3</u>	<u>(0.5)</u>
2003	10.6%	11.7%	11.7%	13.7%

2001 Investment Experience*

<u>Net Rate of Return</u>	<u>Fixed Trust</u>	<u>Variable Trust</u>
Assumed	8.0%	N/A
Recognized	8.2%	(7.9)%
Market	(2.6)%	(7.9)%

** Mean value measurement.*

Summary of Act 11 Changes

Rates for	General	Executive & Elected	Protective Occupations With S.S.	Occupations Without S.S.
● Increase in past service multiplier and increase in maximum benefit	0.6%	0.9%	0.6%	0.9%
● Repeal of interest caps and increase in D-I-S benefits	0.5	0.3	0.2	0.1
● Stand-alone cost of increases	1.1	1.2	0.8	1.0
● Increase in spread	N/A	N/A	N/A	N/A
● TAA transfer	(0.7)	(1.1)	(1.2)	(1.7)
● Net change in computed rates	0.4%	0.1%	(0.4)%	(0.7)%

Contribution Rate Allocation

- Normal cost contributions are paid by employers in most cases.
- Reductions in participant normal costs reduce death and separation benefits.
- The non-refundable BAC is approaching 0% for the General group.
- It is not clear that the original intent of current contribution rate provisions is being met.
- The design of the contribution rate allocation statute should be reviewed.

Concluding Comments

- Contribution rates will increase in 2003 for General and will decrease for the other groups.
- Fixed investment return was slightly above the assumed level of 8%. Additional detail will be presented at a later date in the Gain/Loss Analysis.
- **WRS continues to be in excellent financial condition in accordance with principles of level percent of payroll financing.**